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ABSTRACT

The author discusses the benefits of using individualized instructional methods in physical education and describes the various components of the method. General rationale for the implementation of individualized instruction is that subject matter taught is frequently dependent upon the processes provided for learning--if learning does not take place, the subject is rejected. The individualized approach is seen as starting with plans identifying what it is possible to learn, how well it can be learned, and what procedures will help the student learn. From this base, the instructor may construct programs or modules, with selected learning objectives and terminal objectives. Change from static to dynamic conditions is seen to occur at the learner diagnosis stage, through a program of testing which elicits information enabling learner and facilitator to develop a personal prescription. The prescription consists of the actual learning process, tailored to the individual student. Evaluation of performance constitutes the final stage of the process. Operational procedures of the instruction vary according to the nature of the activity and the place in which it is performed. (MJB)

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INDIVIDUALIZING INSTRUCTION: PURPOSE AND PROCESS

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January 21, 1978

Most college general physical education programs today provide students with a choice of courses but few provide them with a choice of methodology. That perogative is jealously guarded by teachers. But often it is not the subject matter of the course that students object to, but the teaching method. Indeed the value of the subject matter is all too frequently dependent upon the process provided for learning it. If learning does not take place, the subject is rejected. Consequently, organizing the subject matter and learning environment, and providing teaching methods to accommodate each student's learning pattern are necessary to promote learning.

Individualized instruction is a teaching system which provides for structuring learning experience that will be congruent with the student's learning mode, achievement level, interest, and goals. Although the overall goals are specified for a course, individualizing instruction makes possible a multitude of procedures for achieving personalized goals within the larger context.

The value of individualized instruction as a process in the general education physical education program is primarily to provide a more productive learning system for the good of the student. More productively refers to learning in all domains: pyschomotor, cognitive and affective. Research consistently points to slight improvement in the acquisition of

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knowledge and skill but considerable improvement is apparent in the affective domain. Another value of individualized instruction is its potential as a cost efficient learning system. Instructing large classes is cost efficient but deficient in learning because of difficulty in providing individual help because the teacher's attention is on directing the group. Furthermore, large classes are often not possible because of limited facilities for practice and play. An instructional model was developed by Kneer and other faculty at the University of Illinois Chicago Circle, which fuse individualized and open instruction to provide a flexible, personalized quality learning environment capable of accommodating large classes which produced high levels of learning at a low cost per student.

Teachers often individualize instruction to some extent. Special instructions to certain students are given. Students may be permitted to work on different skills at different times. Often individual attention to one student may take place at the expense of the others because the plan of instruction does not allow for individual pacing and involvement.

A desirable learning environment will allow the individual to progress through the learning program with a large measure of self-direction and involvement. The teacher facilitates the learning by identifying the knowledge and involvement tasks with the student. These tasks provide for the student's mode of learning, the appropriate feedback information needed, the student's interest in the subject matter, and his or her goals.

Individualizing instruction is a total process. The steps toward individualizing units are sequential.

One object of the individualized system is to get the student involved in the learning process by doing, thinking, and feeling. The student should not be manipulated to recite, mimic, or commit skills and knowledge to rote memory nor be allowed to wander aimlessly toward a whimsical objective that may never yield results. Involvement in and responsible control of learning environments is essential. Within the context of the global goals, students would be encouraged and expected to develop intermediary or unique ones. The teacher would help the student to find the best pathway to the agreed-upon goals. The program will encompass learning the process of self-education--learning how to learn, as well as learning the basics for mastery of the subject matter.

Individualized instruction starts with the student. The student's learning program is planned and conducted on a one-to-one basis. Group instruction is utilized whenever several students are ready to practice a skill or task in a like way. Figure 1 is a model of the system.

The individualized approach starts with the production of predetermined conditions or static plans which identify what it is possible to learn, how well it can be learned, and what procedures will help the student to learn it. What is to be learned, and how well, are expressed in purposes, objectives, and standards of performance. Helping the learner requires the development of multi-variant processes to allow the learner to acquire knowledge and understanding, as well as to practice for reinforcement. These plans are based upon an assessment of the total teaching-learning environment and operational feasibility in terms of time, space, facilities, and instructional assistance.

Predetermined conditions developed by the facilitator or teacher provide a operational base from which a student may plan to learn the

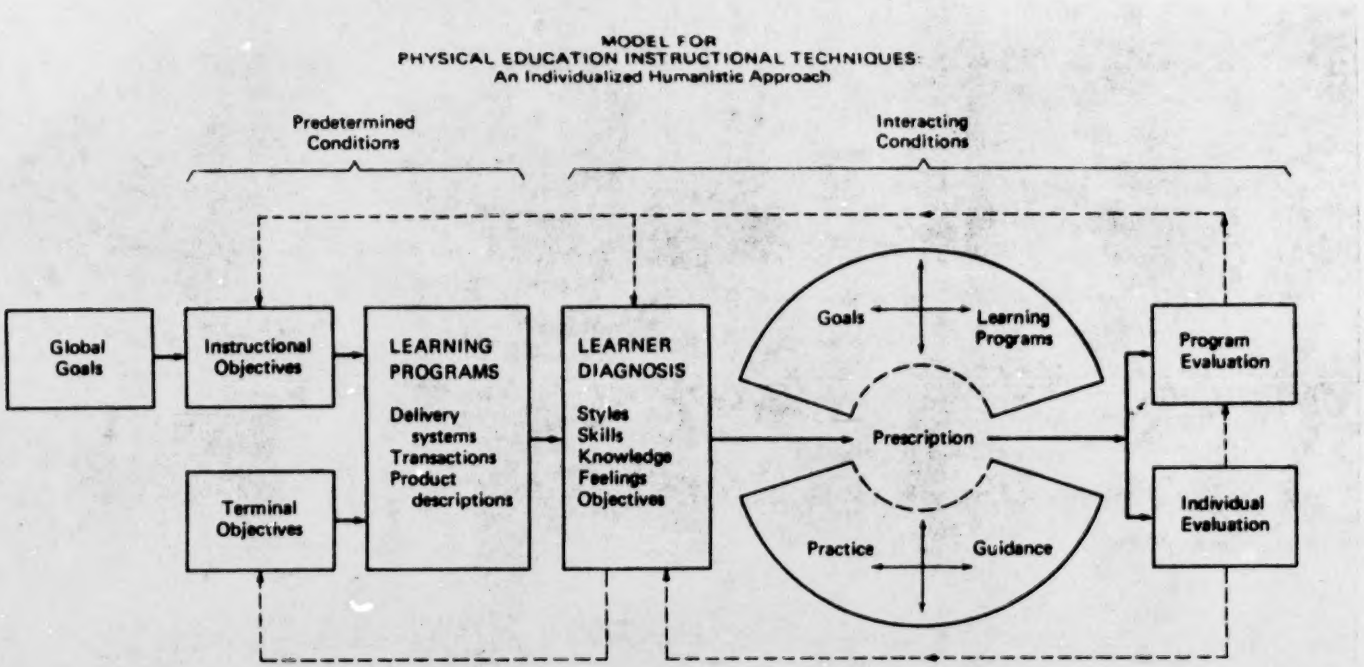
MODEL FOR
PHYSICAL EDUCATION INSTRUCTIONAL TECHNIQUES:
An Individualized Humanistic Approach
Predetermined Conditions
Interacting Conditions
Global Goals
Instructional Objectives
Terminal Objectives
LEARNING PROGRAMS
Delivery systems
Transactions
Product descriptions
LEARNER DIAGNOSIS
Styles
Skills
Knowledge
Feelings
Objectives
Goals
Learning Programs
Prescription
Practice
Guidance
Program Evaluation
Individual Evaluation

Figure One

subject matter. The opportunity to choose is not limited to the available alternatives. Responsibility is given to the student to analyze his entry point and to decide how he will reach the desired goal.

The first step in preparing an individualized instruction system after global goals and instructional objectives are developed in to create learning programs or modules. They form the bridge between learning objectives and terminal objectives.

Group teaching provides one approach to learning via teacher-directed explanations, demonstrations, and drills in which all students participate. An individualized teaching-learning setting provides several courses of action to be pursued singly or in combinations. Students may be (1) working on different tasks toward different goals, (2) using a variety of learning materials or equipment to reach similar goals, (3) practicing the same task in individual or group settings, (4) pursuing assistance from different resource personnel: facilitators, aides, peers, leaders, or paraprofessionals, (5) studying via different methods, discovery, and independent practice, and (6) using varying amounts of time to achieve mastery.

Students may work as an individual or as a member of a group. Teachers may use class-prescribed activities as well as provide a degree of individual choice. For example, a class may be taught as a group one day, individualized another, or be a combination of the two. Some form of written guidance will be needed. This guidance is referred to as a module or contract that includes all possible options and directions. The module will vary in time needed to complete. Each module provides the learners with small, readily mastered segments of the unit of study, as well as active involvement options, feedback, and opportunity to learn at the pace

most suitable to each of them. These functions are executed through the following components:

1. Statement of learning objectives (Purpose)
2. Delivery system (Information input)
3. Transactions (Practice)
4. Terminal objective (Evaluation)

Writing a learning program begins with a selected learning objective and its concomitant terminal objective. A variety of media options are written which will maintain interest, introduce relevancy, provide consideration of human variables, enable the student to choose what will be learned and how, and permit the student to assume responsibility for most of the learning. The experiences suggested whereby students may obtain information and help is called a delivery system. Delivery systems provide opportunities for the acquisition of information through actions, reading, listening, observing, and discussing. The specific options will be dependent upon the resources available, such as:

Space: Gymnasiums, corridors, other rooms, fields
Resources: Library, media, books, filmstrips, loopfilms
Professionals: Student leaders, paraprofessionals, parents

Once the delivery system is constructed the next step will be to develop practice tasks, called transactions. Transactions serve to give the learner a chance to apply the information and give the learner feedback to reinforce the learning. The learning module should provide a variety of transactions so that the learner may pick practice experiences which are suited to most productive learning. Possible practice choices should include self-contained, interaction, discovery, and independent-type tasks.

The final component of the learning program or module is the terminal objective. Verification that the standards of performance and conditions have been met should be specified. Proof may be accepted from the learner, another student, a paraprofessional, or the instructor. Figure 2 outlines a learning module.

The module should be attractive and in a readily understandable format. The modules may be printed on reusable poster boards or cards, or printed for personal use. Arrange a system to keep a record of the achievement of the terminal objectives.

Developing learning modules takes time. Often the learning options are not always as productive as expected. These concerns should not stop you from doing the best you can even if a variety of options can not be produced. Changes in the learning activities of the module may be made while the unit or course is in progress or before. Learning modules direct the student learning more so than does the instructor. Nevertheless, the teacher is essential to give surveillance over all the learners' activities. The quality of the learning program and the personal professional assistance must create an environment that will inspire total student participation. A feature of a learning program is active participation experiences designed to be enjoyable and challenging. The facilitator is still necessary to guide, encourage, diagnose, and manage the learning experiences of each student.

In summary, the development of a learning module involves these steps:

1. Select learning objectives.
2. Develop as many delivery systems and transactions as possible with the available facilities, space, resources, and help.
3. Reproduce the modules in a format that fosters maximum student interest, understanding, and participation.

Topic

Name _____ Date _____

Learning Objective:

Safety Cautions:

Delivery System: (Input)	Attempted	Completed
1. Read		
2. Listen		
3. Observe		
4. Discuss		
Transaction: (Practice)		
1. Self-contained		
2. Interaction		
3. Discovery		
4. Independent		

Terminal Objective:

Comments:

Figure 2

Diagnostic Plans. The individualized learning model indicates that a change from static conditions to dynamic conditions is at the learner diagnosis phase. The goal of diagnosis is to help the learner and facilitator select learning objectives and experiences that will achieve the objectives. An examination is given to determine student needs. This examination may be in the form of written or skill tests designed to determine entry aptitudes, learning styles and interests. It may be less sophisticated and simply be

BADMINTON DIAGNOSIS

Name _____

Class _____ Hour _____ Date _____

Directions: Please answer the questions below as accurately as possible. Your answers will be helpful to plan with you ways which will help you to learn badminton.

Yes	Some	No	Questions
			1. Have you ever played badminton?
			2. Have you ever hit a badminton shuttlecock?
			3. Have you ever been given badminton instruction?
			4. Are you looking forward to learning badminton?
			5. Do you consider yourself skilled in sports?

If you answered yes or some to questions 1, 2, or 3, please rate your ability and knowledge of the badminton skills below:

Skill/Knowledge	Beginner	Amateur	Pro	Comments
1. Serving				
2. High clearing shots				
3. Net shots				
4. Drop shots				
5. Drives				
6. Smashes				
7. Rules				
8. Strategy				

What kind of assistance would be most helpful to you in this class? (Check)

_____ Drills _____ Teacher demonstration and instruction _____ Work on own

_____ Help from classmates _____ Lots of pictures _____ Other

(You may check more than one. If you checked Other, please explain below.

Figure 3

a self-rating check list. Figure 3 is an example of a simple diagnostic test.

The extent of the diagnosis depends upon available previous knowledge about the learner, time constraints, need, and expediency. Regardless of the nature of the diagnosis, information must be obtained which will help the learner and facilitator develop a personal prescription. Diagnostic evaluation plans should be structured to give insight into experience, learning mode, understanding, interest, and skill.

Prescription. When the facilitator has obtained sufficient information, a program of study is discussed with the student. This program is called a prescription. The form of the prescription is designed to suit the specific situation. The exact skill or knowledge to be learned should be made known to the student either verbally or in writing. Figure 4 is an example of a prescription which provides a record of the student's entry point, possible modules or skills to be mastered, a procedure for indicating which are to be learned, and a system of recording completed modules.

The facilitator tentatively proposes the prescription based upon the diagnostic examination. The dynamic conditions of the learning process now begins. A conference is held with the student to seek agreement between the teacher and student. The student's feelings concerning the plans, questions about the course, additional suggestions, and the student's role are discussed. The prescription may be modified at any time.

Evaluation. Plans should include the procedures to be used to evaluate performance and assign credit or grades. It is recommended that the grades be criterion-based rather than norm-based and that the system be clearly explained to the learners at the beginning of the course. Grades may be determined on the percentage of learning modules completed, contract points, final knowledge and skill tests, or combinations of these plans. Since modules and learning programs specify terminal objectives and a means to verify achievement, they may serve as self-evaluative assessments.

If mastery levels are identified, the student ought to be able to choose the skill level desired. In some activities a student may desire and possess the ability to attain a high mastery level and seek an "A." In other activities, only a "C" level of competency may be desired.

BASKETBALL
STUDENT ASSESSMENT FORM

Name _____ Year _____

Advisor _____

Summary of Accomplishments

Skills	Teaching	Extra
Planned Points _____	Large Group* _____	Written Tests* _____
Completed Tasks _____	Small Group 1 2	_____
Grade _____	Individual 1, 2, 3, 4	_____

Diagnosis:	No further work	Some additional work	Beginning level
Passing			
Dribbling			
Shooting			
Offense			
Defense			
Rules			
Strategy			

Comments:

Prescription: Using the test results, students are to cross off skills which they can perform. (Use a series of vertical lines.) Draw a diagonal line through tasks listed below which are to be learned in class. Draw a diagonal line from the opposite direction when the task has been completed. (This should form an X.) Each task or contract listed below has a corresponding task sheet to assist you to acquire the skill. Place the task sheet in your folder when completed.

PASSING 1 Baseball pass Chest pass Overhead 3 points	DRIVING 2 Crossover 2 points	FAKES AND MOVES 3 Jumpshot fake Rocker step Drop step fake 4 points
PASSING 4 Bounce pass from dribble Flip pass from dribble 2 points	SHOOTING 5 Conventional layup shot Stationary From dribble From pass 3 points	REBOUNDING 6 Jumping Protecting Blocking Clearing 3 points

*Required

Figure 4

This level selection could occur before instruction begins, but if during the learning program the student becomes more interested or sees that accomplishment can be greater than predicted, the goals could be readjusted.

Operational Procedures. The final consideration is procedures for managing and scheduling the course. Students move about with structure even though the class may not appear to be so ordered. Management plans must include provisions distributing modules, record keeping, managing equipment, space, media, and safety. A system is needed that is efficient. File folders, file boxes, pigeon holes, or booklets are possible provisions. Records of student progress may be kept in folders or file boxes, or recorded on a master record chart. Any system that can store the information and be easily made available should be workable.

Space should be arranged to maximize its use. Areas should be specified for practice, play, study, and evaluation. This plan should include provisions for student or professional assistance in setting up the equipment, media, and records. Safety provisions should follow recommended for the specific activity.

It is possible to individualize instruction indoors, outdoors, and in small or large spaces. If the activity is held outdoors, learning modules or tasks may be attached to a clipboard located near markers, in boxes, or in a control area on benches. Media may need to be centered inside the building in a room adjacent to the field. A group may be assigned time to use it while some practice and others play. An individualized instructional calendar may be less structured than a traditional teaching plan, but provisions for special help, instruction, practice, evaluation, and tournaments should be tentatively scheduled.